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## What Works in Job Creation and Economic Development

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## “What Works in Job Creation and Economic Development”

Tim Bartik, Senior Economist, Upjohn Institute

June 1, 2011 Presentation

Presented at “Transforming Communities Conference” of the National Employment Law Project

Thank you for inviting me to speak at your conference. The title of my speech is “What Works in Job Creation and Economic Development”. But before we can determine “what works”, we need to identify why job creation and economic development are worth supporting.

Too many economic development policymakers are overly focused on the goal of economic growth. But growth is only good to the extent that it brings about increased real incomes for state and local residents. Benefit cost studies show that over 70% of the benefits of job growth are the resulting increase in per capita earnings.

Focusing on growth in earnings per capita for all local residents, rather than growth in jobs or output, is crucial in changing the debate about economic development policy. Changing the goal from job growth to earnings per capita growth changes which policies are most cost-effective.

For example, if we are interested in growth in earnings per capita that is broadly shared, then who gets the new jobs becomes important. What policies best improve local job quality also becomes important.

Once the goal is identified as a broad increase in local earnings per capita, it becomes clear that local economic development policy is really just local labor market policy. Earnings per capita is a labor market outcome. Better labor market outcomes can be achieved by either working on the “labor demand” side of the local labor market, or the “labor supply” side of the local labor market. We can directly increase the quantity and quality of jobs for local residents by directly interacting with local employers. Or, we can indirectly increase the quantity and quality of jobs for local residents by increasing the quantity and quality of local labor supply.

The key question for sound local economic development policy is the following: Which local labor demand and local labor supply policies have the best evidence of being the most cost-effective in increasing local earnings per capita across the local population?

Turning first to the labor demand side, the general business tax cuts being pushed by some Governors, including Governor Snyder here in Michigan, are unlikely to be cost-effective for several reasons. First, even if these general business tax cuts had no budget cost, for example if Bill Gates decided to finance a general business tax cut in your state, these general business tax cuts are too broad to be cost-effective. General business tax cuts include not only export-base businesses but also locally-oriented businesses. And tax cuts for locally-oriented businesses don’t do much for local economic development.

In regional economics jargon, “export-base” businesses are companies that sell their goods and services to consumers and businesses outside of your state or local economy. For example, for Flint, Michigan, these export-base businesses include businesses that sell their goods and services to consumers and business in such a strange foreign place as Columbus, Ohio. Export-base businesses bring new dollars into your local economy. These new dollars then recirculate into spending at local suppliers and retailers, and thus have a multiplier effect on local jobs. So, cutting business taxes on export-base businesses may increase their share of the national market, with multiplier effects on other local jobs.

In contrast, because locally-oriented businesses by definition only sell to a local market, their economic activity is not determined by their business taxes, but by the incomes and demands of local consumers and businesses. How many restaurant jobs there are in a local community is largely determined by how much disposable income people have to spend at local restaurants, not by business taxes.

In addition, across the board business tax cuts go to all businesses, regardless of whether or not they are creating new jobs. This is very inefficient compared to conditioning business tax cuts on business job creation.

Therefore, even if general business tax cuts are magically financed from outside the state, I estimate that for each \$1 reduction in state and local business taxes, the present value of per capita earnings of state residents only is increased by 51 cents. These policies simply aren’t cost-effective.

Furthermore, absent charity from Bill Gates, general business tax cuts must be financed in some way. With state balanced budget requirements, lower business taxes mean higher personal taxes or lower public spending.

Lower public spending will have short-run negative effects on demand for goods and services. These short-run negative effects will outweigh any short-run stimulative effects of general business tax cuts. The local restaurant’s lower taxes are outweighed by the lower demand when teachers are laid off or take salary cuts.

In the long-run, if lower public spending leads to lower quality infrastructure, or lower quality labor supply, these negative effects on long-run local growth can outweigh any positive effects of lower business taxes.

What about business tax incentives? These can be significantly more cost-effective in increasing local earnings per capita, but only if they are well-designed. Well-designed incentives must be well-targeted on businesses that are export-base, are actually creating jobs, pay high wages, have high multiplier effects, and are likely to hire local residents. Targeting is essential to maximize benefits for local earnings per capita, while minimizing the negative effects of the costs of financing the incentive program.

Business tax incentive programs can be more effective in raising earnings per capita if accompanied by well-designed community benefits agreements or local hiring agreements that encourage businesses to

work with local job training providers to hire local residents who are unemployed or underemployed. Good design also includes a budget constraint on the incentive program, clawback provisions to recover incentives if the business leaves, and public disclosure and accountability for results.

An exemplary business tax incentive program might provide benefits, for each dollar invested, of increasing the present value of local per capita earnings by \$3. This is about 6 times the cost-effectiveness of general business tax cuts.

A more cost effective type of labor demand policy is customized services to small and medium-sized export base businesses. For example, we have good studies showing high bang for the buck for customized job training and manufacturing extension services.

Under customized job training, state governments totally or partially subsidize the provision of job training, either for new workers or incumbent workers, which is customized to the particular skill needs of an individual employer. This customized training is frequently delivered by local community colleges.

Under manufacturing extension services, manufacturers are provided with free or highly subsidized advice on how to improve their productivity or product design, and how to find new markets. Most manufacturing extension services are in part supported by the U.S. Department of Commerce.

There are several good studies that suggest that well-run customized job training and manufacturing extension services are far more cost-effective in creating jobs than is true of even the best-designed business tax incentive programs. The estimates suggest that per dollar invested, customized job training and manufacturing extension increase the present value of local per capita earnings by at least \$30, over 10 times the cost-effectiveness of business tax incentives. These customized services seem most effective with small and medium sized businesses.

Why are these programs cost-effective in helping small and medium sized businesses? These policies can be cost-effective largely because small and medium sized businesses frequently face numerous barriers of information, expertise, and financing in accessing needed services. Public policy can have a high impact by helping small and medium sized businesses to overcome these barriers.

Another labor demand-side policy that can work is providing wage subsidies to employers to hire the local unemployed for newly created jobs. Over the years, many states have at times adopted some type of wage subsidy program for hiring the unemployed. The particular program design that I think is best is the one used by Minnesota in its MEED program from 1983 to 1989.

Under Minnesota's MEED program, local job training agencies received a pool of money to provide wage subsidies to local employers for hiring unemployed residents referred by these local training programs. MEED provided hefty wage subsidies, of \$10 per hour in today's dollars, for up to six months. But in return for these hefty subsidies, MEED imposed some stringent requirements. To minimize displacement of existing workers, the subsidized workers had to be hired into newly created jobs, not

existing jobs. Employers were required to keep subsidized workers for at least one year after the six month subsidy period. And the subsidies were controlled by the local job training agency, which could choose which employers would receive the subsidy, and which workers would receive the subsidy. The local training agency could use its discretion to identify the employers that would be most likely to use the subsidy to expand employment and provide useful employment experience. The local training agency could also use its discretion to identify the unemployed workers who most benefit the most from this additional employment experience.

Created jobs could be in either the public sector or private sector. Most jobs were in small non-profits or small and medium sized businesses. Small and medium sized businesses seemed most responsive to the MEED subsidies. Among larger employers, 40% said they would not have expanded “but for” the subsidy, whereas this percentage went up among the smallest employers to 68% who would not have expanded but for the subsidy. Smaller employers reported that the MEED subsidy helped overcome financing barriers to expansion.

MEED increases local earnings per capita in two ways. First, on the labor demand side, it induces some employment expansion, particularly among small and medium sized employers. Second, on the labor supply side, it provides valuable employment experience to the unemployed. This extra employment experience will increase their skills and hence their long-run earnings.

Based on the research, I calculate that for each \$1 invested in MEED-style wage subsidies, the present value of local earnings per capita increases by \$6. Although this is less than the 30 to 1 benefit cost ratio for manufacturing extension or customized job training, MEED programs target a larger proportion of the increased earnings per capita on lower income local residents.

In sum, labor demand programs can be an effective way to increase local earnings per capita. But to be effective, they need to be targeted where they can do the most good, which typically is towards export-base businesses, towards job creation decisions, towards higher wage jobs, and towards services and financing that helps small and medium sized businesses whose expansion is inhibited by problems in private markets. Targeting increases the effects on earnings per capita, while minimizing program costs and hence the adverse effects from paying for these programs.

Finally, as I will explore further in a second, there are some distributional benefits of well-designed labor demand programs such as MEED that have a labor supply component that targets particular disadvantaged individuals for assistance. Labor demand programs by themselves tend to have relatively weak targeting on lower income groups. Creating jobs does increase the incomes of lower income groups by a higher percentage than the incomes of the middle class or the upper class. But the dollar effects of just creating jobs actually are somewhat lower for lower income groups, without special measures to target the jobs created on the disadvantaged. The benefits of job creation by itself are limited by the more limited skills and access to jobs of lower income groups. Lower income groups tend to have lower wages and labor force participation rates. These disadvantages can be remediated through greater job availability, but there are limitations to how much job availability by itself can do. To

more effectively help lower income groups, we need to also address skills through labor supply programs.

On the labor supply side, a wide variety of measures could be considered to increase the effectiveness of our current educational and training efforts in improving local labor force quality. I will just focus on a few labor supply initiatives for which I think there is good evidence from research of cost effectiveness.

The labor supply programs with the most rigorous evidence of effectiveness are high-quality early childhood programs, such as high-quality preschool. I extensively discuss early childhood programs in my just published book, *Investing in Kids: Early Childhood Programs and Local Economic Development*. We have the best research evidence for early childhood programs because in this policy area we have done some high-quality experiments. These experiments show, for example, that high-quality preschool not only increases test scores at kindergarten entrance, but also increases high school graduation rates and educational attainment. High-quality preschool increases adult employment rates and earnings rates by even more than we would predict based on preschool's effects on educational attainment.

High-quality early childhood programs seem to have their long-run effects on adult outcomes by increasing "soft skills" as well as "hard skills". "Hard skills" refers to the cognitive skills measured by reading and math tests. "Soft skills" refer to the social skills of how well a person gets along with peers and authority figures. "Soft skills" also include a person's ability to plan and their self-confidence. The "soft skills" and hard skills that a child obtains in preschool translate into greater success in kindergarten, which in turn reinforces and augments these skills, particularly these soft skills. The process continues on in first grade, and subsequent ages. Eventually, we have an adult who has greater "soft skills" in adulthood. Such soft skills are probably at least as important as hard skills in determining labor market success.

Early childhood programs can boost local economic development because over 70% of all participants in early childhood programs will spend most of their working career in the state in which they spend their early childhood. Over half of all Americans will spend most of their working career in their early childhood metro area. These percentages do not vary much with the size or growth rate of the local economy. Therefore, a state or local area's investment in early childhood programs will affect a local economy's long-run labor force quality.

Numerous studies show that in today's global economy, higher local labor force quality is a key competitive factor affecting a local area's attractiveness for the location and growth of business. If you develop higher local labor force quality, this will drive the local creation of high-quality jobs. And as a result, local earnings per capita will increase.

In my book, I calculate that for each dollar invested in high-quality early childhood programs, the present value of local per capita earnings increases by \$2 or \$3. These programs pay off purely in economic development terms, without even considering such social benefits as lowering the crime rate.

The economic development benefits per dollar invested from high quality early childhood programs are on average similar to high-quality business tax incentives, with about a 3 to 1 return in both cases. But the economic development benefits of early childhood programs are far more targeted on lower income groups than is true of business tax incentives.

For example, consider universal preschool vs. high-quality business tax incentives. Although both have \$3 in benefits per dollar of costs for the overall local population, they have dramatically different benefits for lower income groups. For example, consider effects on the families in the lowest one-fifth of the income distribution, the bottom income quintile. In my book, *Investing in Kids*, I estimate that for each dollar in taxes paid by lower income families to pay for the cost of business tax incentives, their earnings increase by \$6. In contrast, for universal preschool, for each dollar in taxes paid by the lowest income families for these programs, their earnings increase by \$25, over four times as much.

Why is universal preschool so much more progressive in its income distribution effects than business tax incentives? As mentioned before, the benefits of job creation from tax incentives for lower income groups are limited by these groups' low wage rates and low labor force participation rates. But early childhood programs provide their greatest assistance in boosting labor force quality for the groups with the greatest disadvantages. This is true even when the program is designed to be universal in scope, such as universal preschool. Although the middle class child also benefits from universal preschool, preschool makes a greater relative impact on life prospects for the children from the most disadvantaged families. These job skills programs directly increase the low wage rates and low labor force participation rates of lower income groups, which are limiting factors for these groups' benefits from job creation programs.

Obviously much of preschool's benefits for higher local earnings per capita are long-term. We're not sending preschoolers out to find a job at age 5. Most of preschool's benefits for higher local earnings per capita don't occur for at least 15 or 20 years.

However, there are considerable short-run economic benefits. Parents value their child's access to higher-quality education opportunities. Hence, a local area that makes such child educational opportunities available will attract parent in-migrants, and experience an increase in home values. For example, we know that higher 3<sup>rd</sup>-grade test scores raise property values. This is documented by research studies that compare similar houses in similar neighborhoods, with the neighborhoods differing only in 3<sup>rd</sup> grade test scores. In my book *Investing in Kids*, I calculate how much we would expect universal preschool to raise local property values simply due to its effects on 3<sup>rd</sup> grade test scores. This calculation suggests that universal preschool will increase local property values by 13 times the annual program costs of universal pre-k.

Other labor supply initiatives to spur local economic development might go beyond early childhood programs to improve the quality of K-12 education. As a general rule, early intervention is easier to make cost-effective. But later interventions can also have economic development benefits that are greater than costs.

In chapter 12 of *Investing in Kids*, I provide estimates of the economic development benefits for a state economy of policies that increase elementary test scores, secondary test scores, high school graduation rates, or college graduation rates. The economic development benefits from even slight improvements in educational quality or attainment are quite large. For example, improving elementary test scores for ONE student by an amount equal to what a child typically learns in just ONE MONTH of school increases the present value of earnings in the state by about \$8,000. The conclusion is that if we can increase average test scores in an entire class of 20 students by one month, the present value of earnings gains will be 20 times \$8,000, or \$160,000. A program that could achieve these educational results would be justified in benefit cost terms for any cost of less than \$160,000. Even very expensive programs that modestly increase educational achievement can pay off for a state's economic development.

One K-12 educational intervention for which we have good evidence of success is mandatory summer school for elementary school students who are significantly behind grade level. Such summer programs are made mandatory by backing the program up by the threat of possible grade retention for the child. There is good data for Chicago Public Schools that such a summer school program can be effective. A 6 week mandatory summer program can raise average student achievement by the equivalent of what students typically learn in two or three months.

Based on plausible estimates of benefits and costs, each dollar invested in mandatory high-quality summer school would increase the present value of state residents' earnings by about \$8. These gains would of course be highly targeted on the students who otherwise would have stayed significantly below grade level.

High school reform is a harder nut to crack. However, one program that has shown good results is "Career Academies". A Career Academy typically serves 150 to 200 students from grades 9 or 10 through 12<sup>th</sup> grade. Career Academies have three key features. First, each academy is designed as a small learning community with the same team of teachers working with the same students throughout high school. Second, each academy would integrate both academic and career material around a single career theme, such as health-related occupations. Third, each Career Academy establishes partnerships with local employers to make sure the curriculum is relevant, and to provide students with work-based learning opportunities.

Career Academies have been studied using a randomized control trial. The estimated adult earnings effects significantly exceed estimated costs. For each dollar invested in Career Academies, the increase in the present value of state residents' earnings is estimated to be about \$11. These benefits would be highly concentrated among students who otherwise would drop out of school or not attend a four year college.

Finally, adult job training has been sometimes maligned. There is actually considerable favorable evidence on well-designed adult job training programs. Such well-designed job training programs would



work closely with employers to identify needed skills in expanding occupations, and to make sure that the training curriculum is relevant to these needed high-demand skills.

For such well-designed adult job training programs, each dollar invested can yield an increase in the present value of state residents' earnings of about \$3. Again, these benefits are concentrated among the unemployed or economically disadvantaged or displaced workers for whom we target these training programs. Furthermore, we could probably increase returns to job training programs if we could more effectively identify which trainees benefit most from training. It is clear from the data on training programs that the returns to training vary a great deal among trainees. For example, some trainees have very little or zero earnings after training. The zero returns to training for these trainees are obviously dragging down the average returns to training for the entire training group. If we could more effectively identify which individuals are most ready to benefit from training, in personality traits or personal strengths and weaknesses, we could probably run training programs with a considerably higher benefit-cost ratio.

There are no doubt other programs that can effectively improve labor supply quality and boost state and local residents' earnings per capita, although perhaps not with as firm a research basis as the programs I have identified in this speech. Based on what we know about what best improves labor supply quality, high returns to labor supply programs can be obtained in two ways. First, we can obtain high returns by investing early, in early childhood or early elementary school. Second, we can obtain high returns by investing in programs that have strong ties to employers, and that are designed to address the specific labor market problems of a targeted group of individuals.

To sum up, local economic development should be seen as the task of broadly increasing local earnings per capita through a combination of labor demand policies and labor supply policies. These two types of policies complement each other. Labor demand policies help make sure the high-quality jobs are available. Labor supply programs help create high-quality jobs as well, but not necessarily one for one. So labor supply policies will be more effective if accompanied by labor demand policies. Labor supply policies help make sure that there are local residents with the requisite skills to fill high-quality jobs. Labor supply policies also allow the benefits of economic development to be more effectively targeted to increase the earnings of lower income groups. Labor demand policies by themselves cannot achieve such a high degree of targeting.

Labor demand policies and labor supply policies should be designed to have a high impact on local residents' earnings per capita per dollar invested. There is good research that identifies some of the policies that work. These policies frequently have impacts on local earnings per capita that are many multiples of costs. These benefit/cost ratios in terms of their impacts on earnings per capita, with the impacts being even stronger for lower income groups. This research also suggests that policies are more effective if appropriately targeted on particular entities and activities. This targeting either involves targeting particular types of businesses and business activities, or targeting particular types of individuals or particular types of skill development.

So what is the answer to the question of “What works in job creation and local economic development”? There is no one answer, rather a broad strategy of complementary policies are needed. But we can achieve a great deal in local economic development if we use research-proven strategies, and focus local economic development strategies on achieving the important social goal of high-quality local employment opportunities for all.